

CRAFT BREWERY

THE CRAFT BREWING REVOLUTION

June 2017



**CUSHMAN &
WAKEFIELD**

CELEBRATING
100
YEARS

CRAFT BREW: THE RISE OF THE LITTLE GUYS

Craft brewing is not new. Locally or regionally produced beers with a limited distribution have had a following for quite a while. But over the last decade craft brews have experienced a meteoric increase in popularity. According to the Brewers Association, the number of craft breweries in the U.S. has more than tripled over the last 10 years. This explosion of growth has manifested itself in many forms and formats—from small, artisanal beer-tasting rooms to fully functioning large-scale industrial brewing facilities.

Thirsty for more information? Grab a pint and read on to explore the Craft Brewing Revolution with Cushman & Wakefield.





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BREWING
REVOLUTION



This explosion of growth has manifested itself in many forms and formats—from small, artisanal beer-tasting rooms to fully functioning large-scale industrial brewing facilities.

According to the Brewers Association, the number of brewpub establishments in the U.S. more than doubled between 2006 and 2016—from 989 to 1,916. During the same timeframe, the number of microbreweries has exploded: there were 370 microbreweries in the U.S. in 2006; by the end of last year, that number had swelled to 3,132. Add to that growth from regional breweries and essentially the number of active craft breweries in the U.S. has more than tripled over the past 10 years from 1,409 in 2006 to 5,234 in 2016.

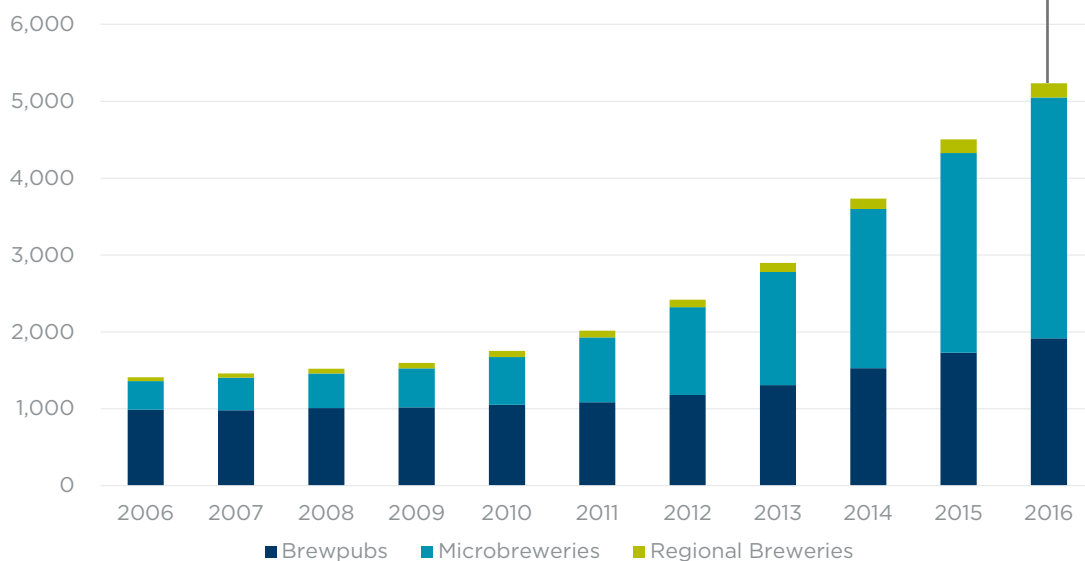
Players active in the field range from the home-brew-enthusiast-turned-professional to big-beer and venture-capital entities buying out small independent brewers or creating their own craft brands to compete with them.

The craft brewing revolution has also had a major impact on commercial real estate. In the retail sector, “Cool Street” markets, in particular, have been strong beneficiaries of this trend. We define Cool Street markets as up-and-coming urban submarkets where shifting demographic trends—driven by strong millennial and empty-nester in-migration—have transformed often long-neglected neighborhoods into burgeoning alternative retail markets.

Real estate in Cool Street districts is all about the reinvention and repurposing of space. The impact from the craft brewing trend in these markets has taken a variety of forms, such as redevelopment of aging industrial buildings for brewing facilities and tasting rooms, renovation of historic structures for craft-brew-focused pubs and

Craft Breweries in the United States

The craft brewing marketplace has more than tripled over the past decade.



Source: Brewers Association



FUN FACT:

Had it not been for beer, the Pilgrims might not have made it to Massachusetts. On its journey from England to what was supposed to be Virginia, the Mayflower's fresh water supply became undrinkable and so the Pilgrims turned to ale to quench their thirst.



FUN FACT:

The majority of Americans live within 10 miles of a craft brewer.

microbreweries or full-service restaurants with local craft beers as the focal point.

The impact on industrial real estate has been just as significant. Craft brew users are actively refurbishing what were mostly obsolete, older manufacturing buildings in urban cores. These projects range from

“Even as the craft brewing craze has led to successful destination projects, it has also been embraced by mainstream consumers and more traditional retail venues as well.”

retail tasting rooms in industrial chic surroundings to 200,000-square-foot (sf) or larger regional brewing facilities that may, or may not, have a retail component.

The popularity of these concepts has not been limited to just urban cores or Cool Street neighborhoods. The Portland, Oregon marketplace is one epicenter of this trend. There are 116 breweries within an hour's drive of the city center. Nearly half are outside the city limits and are successful “destination” breweries. Other established craft brew markets such as Cincinnati, San Diego, Sacramento and Denver have seen the successful launch of craft brewing facilities and tasting rooms in industrial parks and other settings far from traditional retail centers, but which also succeed as standalone destinations. One example is Cincinnati's MadTree Brewing. In January of this year, it opened a new 50,000-sf brewing facility and tasting room in a refurbished airplane hangar in what is primarily an industrial part of the near eastside suburb of Oakley. The official opening event at the new space—which is more than triple the size of MadTree's previous industrial park destination site)—drew more than 15,000 people, and MadTree actually sold out of beer within a few hours! MadTree estimates that it

sold nearly 48,000 pints of beer in one day. Meanwhile former food truck, Catch-A-Fire Pizza, which operates the food end of the MadTree operation, sold more than 4,000 slices of pizza in just a few hours.

Even as the craft brewing craze has led to successful destination projects, it has also been embraced by mainstream consumers and more traditional retail venues as well. The casual dining restaurant sector has emerged as the weakest link in today's dining world. This is likely because it has faced stiff competition from both lower-priced fast casual chains and new chef-driven and local upstart chains emphasizing authenticity. But mainstream "brewpub" concepts like Rock Bottom Brewery or Gordon Biersch, BJ's Restaurant & Brewhouse are among the

strongest players in the casual dining world, both in terms of profitability and growth.

Of course, there are many craft brew purists who would argue whether we should even include some of those more mainstream players in a discussion about the craft brewing trend. That is because this trend is being driven by millennials. Consumer polling research repeatedly and strongly suggests that one of the core values of the Millennial Generation is the importance of authenticity. The craft brewing movement has certainly been driven by millennials, beer enthusiasts and artisanal producers who are more likely to speak in terms of purity, authenticity and community when describing their projects than in the mass market terms of traditional big beer conglomerates. That's

ISLE BREWERS GUILD

PAWTUCKET, RI

Isle Brewers Guild is something relatively new to the craft beer industry: a partnership brewery. This Rhode Island based venture opened in February 2017 near the Pawtucket PawSox minor league baseball stadium and a planned new MBTA train terminal in a 131,000 former industrial mill site. While the concept - rebranded The Guild - has office and classroom space, 4,000-sf tasting room, outside beer garden and a festival area for events... what is truly unique here is that this is a collective. There are several craft brewers active here. The headliner is Narragansett Beer, but multiple New England smaller breweries that are having capacity issues are active here as well.



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not to say that big beer hasn't taken notice; many local players are finding that selling to mega-producers is an attractive exit strategy for them, although they can face mixed reactions from diehard fans. But to understand what has been driving this trend, we must first understand the fundamental shifts in consumer preferences that first enabled the movement to take root.

Food, Culture, Millennials & The Craft Brewing Revolution

Americans have always loved beer. Beer has been part of this nation's culture since colonial days. Founding father Samuel Adams was an early American brewer. Ironically, while contemporary craft brand named after him was an early success that helped drive the current craft brewing

revolution, the same could not be said of Sam himself. Within a few years of inheriting his father's malting business, he had bankrupted it; his political opponents derisively referred to him as "Sam, the Maltster." Later of course, this future signer of the Declaration of Independence found his calling as a revolutionary firebrand, co-founding—with John Hancock—the Sons of Liberty and helping to plot resistance to English policies which led to the American Revolution. That plotting, by the way, was frequently done at Boston area taverns over copious amounts of craft brew.

While America has always had a strong history of beer consumption, local craft breweries have historically been the driving force behind this. But things changed in the post-Prohibition era when the industry

81BAY BREWING CO.

TAMPA, FL

81Bay Brewing Company opened last year in 18,000 sf of space in South Tampa. This is an example of a craft brewpub taking conventional space and making sure that the experience is anything but. Their tasting room is comprised of murals that include 3D projection mapping and an ambience that makes patrons feel as if they are inside the jaws of a shark peering into the ocean. The space features table tennis, corn hole, billiards, darts, and hosts live music, yoga, trivia nights and a "Man Book Club." Food is provided by a rotating crew of local food truck operators along with multiple local snacks behind the bar. And, by the way, they are having great success.



became dominated by a handful of mega breweries. Heading into the 21st century, big beer entered into a phase of consolidation as multinational beer manufacturers gobbled up competitors—a trend that endured into the recent Great Recession. But as the economy began to recover, things changed again. There were some great craft brew proprietors active well before 2010. But then the craft beer movement really began to flourish. Two key factors have driven the growing popularity of craft brews: foodie culture and the Millennial Generation.

First, the growth of “foodie culture” over the past couple of decades helped set the stage in terms of changing consumer tastes. Foodie culture of some sort has always been with us, but before the 1990s it was largely viewed as a subculture dominated by a handful of elites—the domain of white tablecloth restaurant purveyors and chefs. It was limited almost exclusively to a few major cities.

The rise of 24/7 food television networks in the 1990s catapulted foodie culture into the mainstream. The subsequent rise of the “celebrity chef” expanded the appeal of foodie culture to the masses. At the same time, it embraced and

“Two key factors have driven the growing popularity of craft brews: foodie culture and the Millennial Generation.”

incorporated a number of culinary movements such as “farm-to-fork,” local sourcing, “slow food” and others. Cuisines that had been largely unfamiliar in the U.S. became very popular, as did new chef-driven fusion cuisines.

Ultimately, the recent rise of foodie culture in the U.S. has been about the democratization of food. In addition to creating new options for consumers, it has also spurred the revival and rediscovery of



INSIDER TIP

As the number of brewers in the United States multiplies, incorporating a direct-to-consumer distribution component at brewing locations is becoming more vital. Shelf space in grocery and liquor stores is limited, and even local restaurants that boast the most taps have to rotate brands to accommodate the increased competition. As the distribution channels become more congested, the smaller, independent brewers are able to create their own “shelf space” by opening taprooms and selling their product one pint or growler at a time.



FUN FACT:

Ancient Egyptians thought of beer as a gift from the gods. The beer they drank had very low alcohol content (3%), and was full on vitamins and minerals that were a vital source of nutrition, so it was consumed by all ages. In fact, beer was currency, and laborers who built the pyramids were paid with beer. The going rate was believed to be one gallon of beer per day, which leads to theories that the Great Pyramid of Giza cost more than 231 million gallons of beer to build.

many traditional cuisines as well as the celebration of common street fare—food carts, food trucks, diners and greasy spoons.

Most importantly, the rise of foodie culture has profoundly impacted mainstream consumer preferences. It has created a more knowledgeable food consumer. Consumers—across all

“...while millennials make up 41% of the weekly beer drinking population, they account for the lion’s share of weekly craft beer drinkers—57%.”

demographics—are more adventurous and experimental in their tastes. Ethnic cuisines once considered more exotic (like Poke, Korean BBQ or Ethiopian) that would have been popular only in the most sophisticated urban markets are now mainstays even in smaller towns across the heartland.

Foodie culture has also helped create a new food consumer who cares about what they put in their body and where that food comes from. Locally sourced organic ingredients are “in”; processed foods are “out.”

No demographic has embraced that view with more passion than millennials, and the Millennial Generation is another major factor influencing the craft brewing trend. Millennials now number roughly 85 million, and are the largest age-related demographic in the U.S. As one restaurateur that we work with put it, “Millennial foodies today don’t just want to know the farm that this food came from; they want to know the chicken’s name.”

It was sheer size of the Millennial Generation that accelerated the craft brewing craze. Recent research from the 2015 U.S. Yankelovich MONITORS Survey shows that while millennials make up 41% of the weekly beer drinking population, they account

for the lion's share of weekly craft beer drinkers—57%. Generation X follows at a distant 24%.

Consumer polling data suggests that the very word “craft” inspires consumers to purchase a beer. According to a recent Nielsen study of craft beverage alcohol conducted online by Harris Poll, 35% of drinking-aged adults indicate they are more inclined to try a beer or cocktail labeled as “craft.” That figure jumps to 46% for men in the 21-24 age bracket. Among those who partake on a weekly basis, millennials taste an average of 5.1 different brands per month while 15% of those reportedly try more than ten brands per month.

Men are still the dominant consumers of beer, but craft beer has also proven to be

extremely popular with females. According to Nielsen/Harris, craft beer interest among women now stands at 32%, with those in the Millennial-age bracket (under 37) comprising 15% of weekly craft beer drinkers.

This same research indicates that 40% of craft beer drinkers are college-educated, with over 30% holding graduate degrees. For craft beer producers, this means that their core demographic is not only more likely to be a more highly educated and discerning consumer, but one with much higher levels of disposable income.

Millennials' embrace of this trend brings with it their core consumer values: a connection to the local community, authenticity and the importance of the actual experience itself

URGE COMMON HOUSE

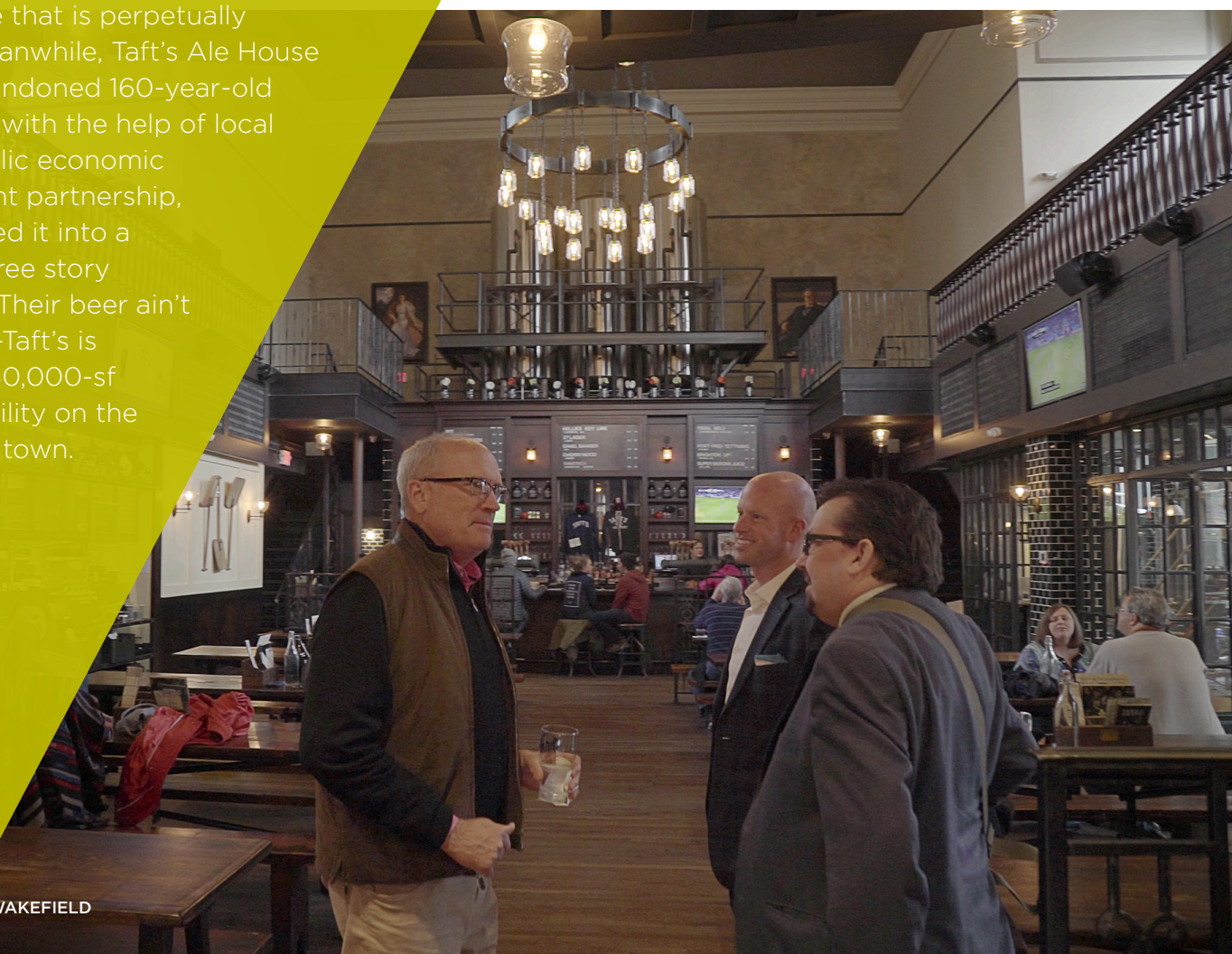
SAN DIEGO, CA

You don't have to be in an urban location to create a buzz anymore. Building from its success in the suburban San Diego neighborhood of Rancho Bernardo the 3LB Restaurant Group just opened their latest concept in April of this year – Urge Common House. This 21,000-sf project anchors North City — a developing, mixed-use, live-work-play community in San Marcos. The concept includes a restaurant that accommodates 450, three bars, outdoor common areas and a PBA (Professional Bowlers Association) approved bowling alley. The venue also offers a view of the new 15-barrel brewery which increases the production and storage capacity for Urge's in-house brewing operation, Mason Ale Works.

RHINEGEIST & TAFT'S ALE HOUSE

CINCINNATI, OH

Perhaps nowhere in the United States has the craft brewing trend meant more towards urban revitalization than in the once troubled neighborhood of Over-the-Rhine in Cincinnati. The area itself was once the Queen City's brewing district but by the mid-2000s was in full blown urban decay with literally more than half its buildings abandoned. That's all changed—it is now the town's hippest neighborhood and that turnaround was accelerated by the arrival of a number of craft brewers. Rhinegeist is located in the historic 1895 Moerlein Brewing Building where the concept has gone from a partial space user to taking nearly all of the 200,000-sf-plus facility with a full brewery, multiple tasting rooms and event space that is perpetually booked. Meanwhile, Taft's Ale House took an abandoned 160-year-old church and with the help of local private/public economic development partnership, 3CDC, turned it into a stunning three story gastropub. Their beer ain't bad either—Taft's is opening a 60,000-sf brewing facility on the outskirts of town.



being paramount. While there is some truth to the clichéd image of typical craft beer drinking being a hoodie- or plaid shirt-wearing, bearded, white male (read: Hipster), explaining this trend with only that stereotype would be a huge mistake.

Racial diversity is one of the defining characteristics of the Millennial Generation. According to a recent study by the Brookings Institute, people identifying themselves as “white” account for 55.8% of all millennials. But almost 30% identify as Hispanic, Asian or mixed-race, and the remainder as either African American or Native American. Hispanics account for just over one-quarter of the craft beer consumer population, making them the second largest cultural group of craft beer enthusiasts. Based on consumer polling, their spending is expected to grow another 31% by 2019.

Not surprisingly, the same macroeconomic trends that impact the brewing industry as a whole impact the craft brewing landscape. While beer remains the number one beverage choice for Americans who regularly purchase alcohol, these demographic shifts (and the changing consumer preferences that accompany them) have spurred a huge growth in market share for craft brewers. The preference for quality ingredients, new flavors, experimentation and local community involvement have all played into the rise of the small batch beer artisan.

So What Exactly is Craft Beer?

According to the Brewers Association, the definition of the American craft brewer is small, independent and traditional, with annual production of six million barrels of beer or less. The trademark of a craft brewer is innovation, incorporating non-traditional ingredients to add distinctiveness and flavor to their offerings.

Included in this category are four distinct segments, the first two of which we will focus primarily on in this report.

- **Microbreweries** produce less than 15,000 barrels of beer per year with a minimum of 75% of their product sold through off-site distribution channels.



FUN FACT:

The tune for the “Star Spangled Banner” was taken from an 18th century English drinking song. Francis Scott Key changed the words but kept the core melody.

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- **Brewpubs** incorporate a restaurant component. The beer is typically dispensed directly from on-site storage tanks and is intended primarily for on-site sales which account for at least 25% of total sales.
- **Regional Craft Breweries** are independent operators that produce traditional and innovative beers totaling between 15,000 to 6,000,000 barrels per year.
- **Contract Brewers** are businesses that are hired by other breweries to produce their beer.

Craft Beer is Gaining on Big Beer

The economic impact of the brewing industry in the U.S. is significant. According

to the Brewers Association, overall beer sales in the U.S. totaled \$107.6 billion in 2016.

The craft beer market accounted for \$23.5 billion or 22% of total U.S. beer market sales in 2016; that is a year-over-year growth of 10%. Craft beer's market share may actually be underreported since the tracking methods include retail distribution channels, and likely miss a large percentage of on-site sales.

One factor playing a role in the market share of craft beer sales figures is the price differential between craft beer and mass-produced brews. Craft beer drinkers are willing to pay a premium per pint because they know they are getting something different. They understand the generally higher price point of craft beer is due to

BLACK BOTTLE BREWERY

FORT COLLINS, CO

How does a brewery squeeze a tasting room with food and a production facility into roughly 2,500 sf of grade level space? Black Bottle Brewery in Fort Collins, CO, went down and out. They converted the storage basement to a production space and permanently removed a 20' x 20' section of the main level to transfer equipment including four 20bbl fermenters, 10bbl fermenters and an 800-sf cooler downstairs. A 2-ton jib crane is used to move equipment, materials and finished product in and out of the basement. The parking lot houses both a 60,000-lb grain silo that sends grain into the building as well as a spent grain bin. All of this sits at an intersection that sees average traffic of 70,000 vehicles per day.



artisanal standards and the quality of the sourced ingredients. As competition grows, so does the demand for hops and other raw materials, which will continue to put upward pressure on production costs.

Barrel production from the overall beer market remained flat in 2016, however, the craft portion of beer production continued to grow 6%. Production among craft breweries had seen double-digit growth every year from 2010-2015. Production from microbreweries grew at an average rate of 26.8% per year during that period, while production from regional breweries and brew pubs grew at an average rate of 18.5% and 10.6% per year, respectively.

It would be challenging to find a market in the U.S. where the rise of craft brewing hasn't already been a major trend for at least a couple of years. In general, we have seen a number of Western and Northeastern markets leading the way, although the craft beer trend has also been extremely vibrant in strong population growth markets such as Florida, Texas and, increasingly, throughout the Southeastern U.S.

Beercations and the Rise of Beer Tourism

The rise of craft brewing has not only influenced the way that local consumers drink and eat; it has also become a driving force in tourism. This has been particularly true in markets with a significant brewing presence where many operators offer facility tours, provide event space and maintain active event calendars. Craft brewers also receive support from industry boosters. Local tourism boards often promote brewery tourism on visitor websites and provide directories of local breweries.

Beer-focused getaways, or “Beercations,” are becoming popular. Some breweries are partnering with hotels and even adding their own expanded event spaces to support the growing trend. The tourism industry is also embracing this trend. Travelocity has launched a new beer tourism index scoring over 300 U.S. MSAs on four factors: number of breweries per capita, ridesharing availability, non-stop air destinations and lodging.

Travelocity Top Beer Destinations 2017

| Larger Metros | | Smaller Metros | |
|---------------|----------------------|----------------|------------------|
| 1 | Portland, OR | 1 | Bend, OR |
| 2 | Denver, Co | 2 | Boulder, CO |
| 3 | Seattle, WA | 3 | Fort Collins, CO |
| 4 | Portland, ME | 4 | Corvallis, OR |
| 5 | Colorado Springs, CO | 5 | Missoula, MT |
| 6 | Santa Rosa, CA | 6 | Burlington, VT |
| 7 | Spokane, WA | 7 | Asheville, NC |
| 8 | San Diego, CA | 8 | Flagstaff, AZ |
| 9 | Madison, WI | 9 | Great Falls, MT |
| 10 | Albuquerque, NM | 10 | Bremerton, WA |

Source: Travelocity.com

For example, construction may be starting soon in Columbus, Ohio on what is likely the world’s first crowdfunded, craft brew themed hotel. Brewdog Brewery’s “Doghouse” will reportedly have IPA taps flowing in every room. The Scottish brewer reportedly had shattered their crowdfunding goal of \$75,000 with more than \$175,000 in investments and nearly a month remaining in their campaign.

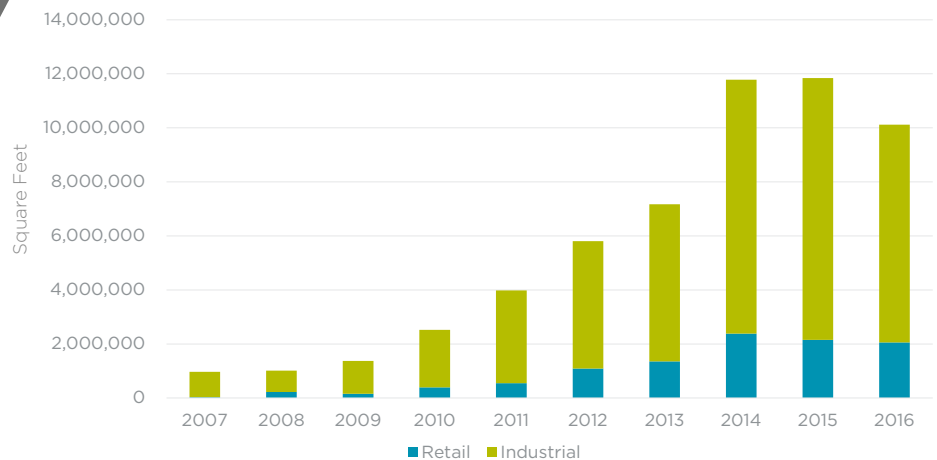
Craft Brewing Responsible for Significant Occupancy Growth

The commercial real estate impact of the craft brewing trend has profoundly impacted both industrial and retail real estate, particularly when it comes to the reclaiming of often obsolete space. Much of the development of brewpubs, microbreweries and regional craft brew facilities has taken place in reclaimed space. On the retail side of the equation this has meant everything from rehabs of older, urban automotive repair shops to the renovation of historic churches. Meanwhile, we have seen everything from abandoned mills and archaic brewing facilities being

redeveloped to vacant manufacturing space being reclaimed on the industrial side of the equation. Certainly, we have seen a limited amount of ground-up new construction of new retail and industrial facilities to house craft brewing tenants, but this has been a fraction of the activity that we have seen in comparison to redevelopment plays. While deals going into existing space for second hand retail space have ranged from traditional restaurant or bar space to suburban strip malls, they have overwhelmingly been about freestanding urban locations. Second hand industrial space, meanwhile, has almost exclusively been in aging flex, manufacturing or white elephant space. This is critical to note as while it is true that industrial real estate has been booming in the United States over the past decade (having accounted for over 1.3 billion sf of occupancy growth since 2010, or an average of more than 49.3 million sf of positive net absorption per quarter), the lion’s share of that growth has been driven by demand for eCommerce fulfillment, distribution and food related industrial space. The craft brewing trend has helped to provide a stronger tenant pool for

Estimated Net Absorption Impact: Craft Breweries in the United States

Since 2007, Craft Brewers have been responsible for over 55.6 million sf of occupancy growth in the United States across both retail and industrial properties.



Source: Brewers Association, Cushman & Wakefield Research

industrial product that had largely been left behind by this trend.

According to the Brewers Association, between 2007 and the close of 2016, the United States added 934 brewpubs, 2,710 microbreweries and 131 regional craft breweries. Our data suggests that brewpubs added during this period average roughly 9,000 sf in size and that these have predominantly gone into retail space. Roughly 75% of the brewpub deals we have tracked have landed in retail or otherwise commercial space. Meanwhile, both microbreweries and regional craft brewing operations have almost exclusively been tenants of industrial space (though tasting rooms, restaurants or food areas and event space is common in the final design of these projects). Approximately 90% of

the microbrewery deals we have tracked have gone into industrial product with these projects typically using an average of 15,000 sf. The much larger regional brewery deals that we have tracked (though there have been many above the 100,000-sf mark, the overall average size is actually closer to 50,000 sf in size), have exclusively gone into industrial space, though it is not uncommon for some of these facilities to open smaller, off-site tasting rooms that have been in the form of both retail and industrial space.

Based upon these averages, this equates to just over 55.6 million sf of occupancy growth across both industrial and retail product types over the past decade. We estimate that 10.4 million sf of that number reflect positive net absorption impacting the retail marketplace. Growth in industrial



DIAMONDBACK BREWING CO.

BALTIMORE, MD

Diamondback Brewing Company was founded by two University of Maryland Alumni who found their passion for craft beer while home brewing in their college dorm. The tasting room & production facility is located in Locust Point, a waterfront community in Baltimore's Inner-Harbor, sits within a high-density live-work-play setting, which was previously used for heavy industrial. The Architect, LED BETTER, designed the tasting room around the iconic smoke stack, originally built in 1920, representing a great example of keeping manufacturing alive with this historical transformation of a former Coca-Cola Bottling Plant & Phillips Seafood Packaging Plant.

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space has dwarfed that, accounting for 81.4% of all craft brewing related occupancy growth. We estimate that this trend has translated into 45.2 million sf of industrial occupancy growth since 2007.

How Much is Too Much?

Even as this trend continues to pick up steam in most major American markets, growth has been slowing in some markets that were early entrants, and saturation has become an issue in some metropolitan areas. While there is plenty of room for growth nationally, the trend has definitely matured. To use a popular baseball analogy, growth in the craft brewing trend is in the fourth or fifth inning.

Craft brewers started to be a player in the industry in the 1980s, although at the time was not considered serious competition for big beer companies. It was 1994 when craft brewing finally accounted for a 1% share of the beer market in the U.S., and 1996 when the number of craft breweries in the U.S. surpassed 1,000.

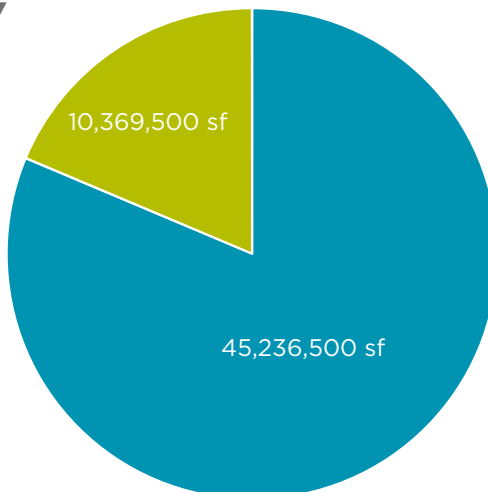
While it took from 1996 to 2011 for that number to reach over 2,000, it only took four more years for that number to more than double. From 2012 to 2014, craft breweries were opening across the United States at an average rate of 1.3 per day. In 2015 that rate increased to nearly 2.3 breweries per day, marking the year that the number of craft breweries in the U.S. surpassed the previous record of 4,131 breweries, which was set in 1873.

As of 2016, the Brewers association estimates that more than 5,200 breweries were in operation across the country with another 1,500 in the planning pipeline.

As with any industry that experiences this rate of growth, there has been significant chatter about a craft beer “bubble.” Has it grown too much? Most craft breweries are small and locally focused, which helps keep the production limits from getting out of control. The double-digit growth of the last six years will likely ease up at some point, and some breweries will close. There have already been a handful of closings in the

What Type of Space are Craft Brewers Using? Since 2007

Though both retail and industrial markets have benefited from craft brewery growth, industrial real estate has been the big winner accounting for over 81% of craft brewing-related growth over the past decade.



■ Retail ■ Industrial

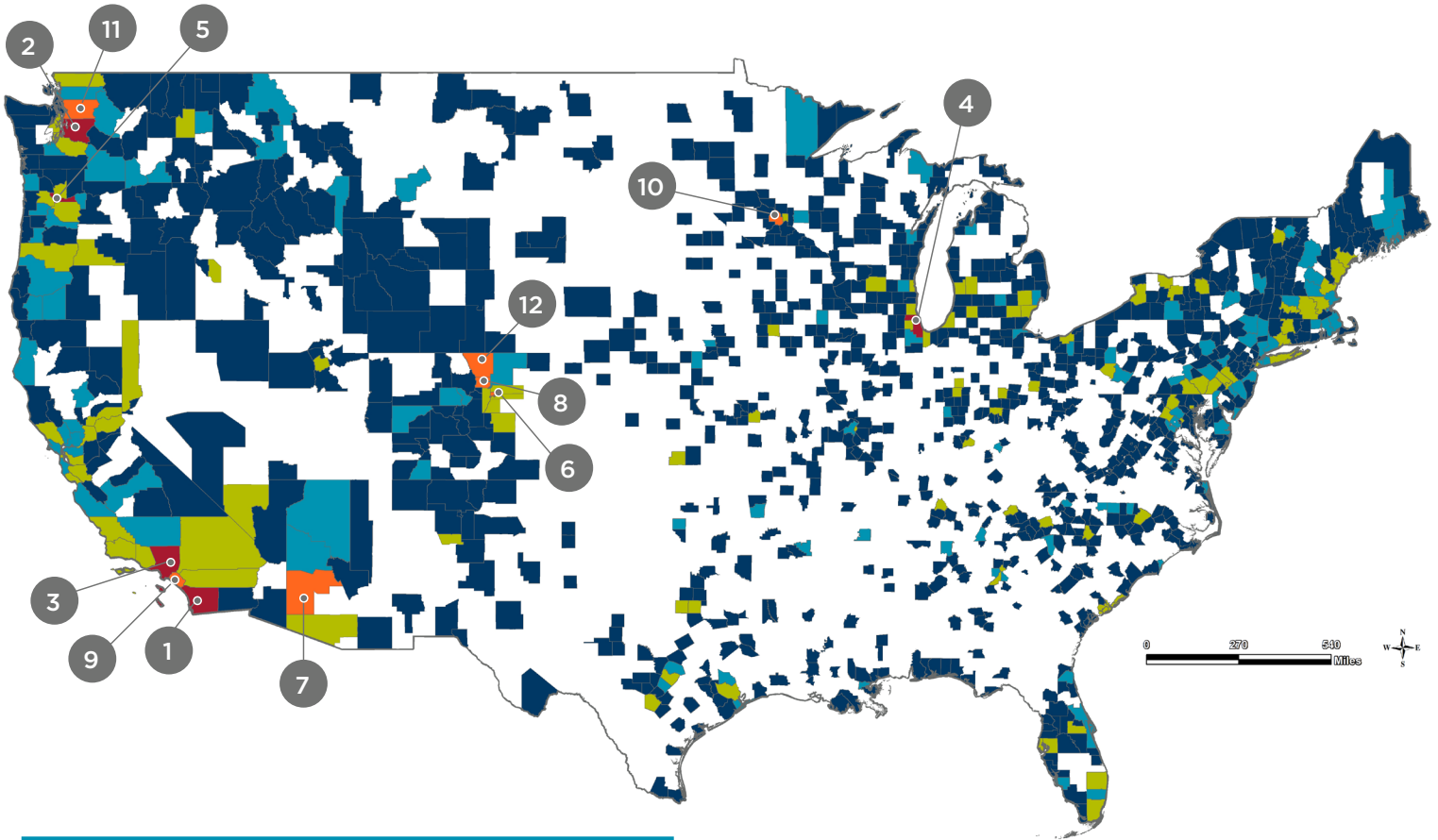
Source: Cushman & Wakefield Research

Number of Breweries

| State | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 1-Yr Change | 5-Yr Change | Breweries Per Capita* |
|----------------------|------|------|------|------|------|------|-------------|-------------|-----------------------|
| California | 270 | 319 | 381 | 431 | 518 | 623 | 20.3% | 130.7% | 2.2 |
| Colorado | 126 | 151 | 175 | 235 | 284 | 334 | 17.6% | 165.1% | 8.4 |
| Washington | 136 | 170 | 201 | 256 | 305 | 334 | 9.5% | 145.6% | 6.3 |
| New York | 75 | 92 | 165 | 181 | 208 | 269 | 29.3% | 258.7% | 1.9 |
| Oregon | 124 | 145 | 181 | 216 | 228 | 243 | 6.6% | 96.0% | 8.1 |
| Michigan | 105 | 122 | 131 | 159 | 205 | 222 | 8.3% | 111.4% | 3.1 |
| Pennsylvania | 68 | 104 | 108 | 136 | 178 | 205 | 15.2% | 201.5% | 2.2 |
| Texas | 59 | 84 | 96 | 117 | 189 | 201 | 6.3% | 240.7% | 1.1 |
| North Carolina | 59 | 71 | 91 | 101 | 161 | 200 | 24.2% | 239.0% | 2.8 |
| Florida | 45 | 57 | 66 | 111 | 151 | 195 | 29.1% | 333.3% | 1.3 |
| Illinois | 54 | 68 | 83 | 103 | 157 | 181 | 15.3% | 235.2% | 2.0 |
| Ohio | 45 | 58 | 76 | 110 | 143 | 177 | 23.8% | 293.3% | 2.1 |
| Virginia | 40 | 50 | 61 | 78 | 124 | 164 | 32.3% | 310.0% | 2.7 |
| Wisconsin | 73 | 84 | 90 | 97 | 121 | 138 | 14.0% | 89.0% | 2.9 |
| Indiana | 46 | 55 | 63 | 80 | 115 | 127 | 10.4% | 176.1% | 2.7 |
| Minnesota | 35 | 47 | 52 | 73 | 105 | 112 | 6.7% | 220.0% | 2.8 |
| Massachusetts | 45 | 49 | 57 | 61 | 84 | 110 | 31.0% | 144.4% | 2.2 |
| Arizona | 34 | 45 | 47 | 53 | 78 | 86 | 10.3% | 152.9% | 1.8 |
| New Jersey | 24 | 25 | 26 | 32 | 51 | 82 | 60.8% | 241.7% | 1.3 |
| Missouri | 43 | 45 | 49 | 55 | 71 | 78 | 9.9% | 81.4% | 1.8 |
| Maine | 34 | 37 | 47 | 52 | 59 | 77 | 30.5% | 126.5% | 7.6 |
| Iowa | 27 | 34 | 40 | 46 | 58 | 70 | 20.7% | 159.3% | 3.2 |
| Montana | 33 | 36 | 39 | 44 | 49 | 68 | 38.8% | 106.1% | 9.0 |
| Tennessee | 24 | 30 | 35 | 39 | 52 | 66 | 26.9% | 175.0% | 1.4 |
| Maryland | 25 | 31 | 34 | 40 | 60 | 65 | 8.3% | 160.0% | 1.5 |
| New Mexico | 25 | 28 | 31 | 36 | 45 | 57 | 26.7% | 128.0% | 3.9 |
| New Hampshire | 15 | 19 | 22 | 26 | 44 | 54 | 22.7% | 260.0% | 5.4 |
| Idaho | 24 | 31 | 34 | 43 | 50 | 53 | 6.0% | 120.8% | 4.6 |
| Georgia | 21 | 22 | 28 | 40 | 45 | 53 | 17.8% | 152.4% | 0.7 |
| Vermont | 22 | 27 | 29 | 40 | 44 | 50 | 13.6% | 127.3% | 10.8 |
| South Carolina | 16 | 16 | 20 | 31 | 36 | 50 | 38.9% | 212.5% | 1.4 |
| Connecticut | 16 | 21 | 23 | 27 | 35 | 49 | 40.0% | 206.3% | 1.9 |
| Nebraska | 18 | 19 | 22 | 32 | 33 | 42 | 27.3% | 133.3% | 3.2 |
| Nevada | 18 | 22 | 22 | 25 | 34 | 37 | 8.8% | 105.6% | 1.7 |
| Kentucky | 11 | 14 | 15 | 18 | 24 | 34 | 41.7% | 209.1% | 1.1 |
| Alaska | 20 | 22 | 22 | 22 | 27 | 32 | 18.5% | 60.0% | 6.2 |
| Kansas | 17 | 19 | 20 | 22 | 26 | 31 | 19.2% | 82.4% | 1.5 |
| Arkansas | 6 | 10 | 13 | 19 | 26 | 28 | 7.7% | 366.7% | 1.3 |
| Alabama | 6 | 10 | 13 | 19 | 24 | 28 | 16.7% | 366.7% | 0.8 |
| Utah | 16 | 16 | 16 | 20 | 22 | 27 | 22.7% | 68.8% | 1.2 |
| Louisiana | 8 | 8 | 11 | 15 | 20 | 26 | 30.0% | 225.0% | 0.8 |
| Wyoming | 13 | 15 | 18 | 22 | 23 | 23 | 0.0% | 76.9% | 5.4 |
| Oklahoma | 10 | 10 | 13 | 10 | 14 | 20 | 42.9% | 100.0% | 0.7 |
| Delaware | 7 | 9 | 10 | 11 | 15 | 19 | 26.7% | 171.4% | 2.7 |
| South Dakota | 5 | 7 | 10 | 12 | 14 | 15 | 7.1% | 200.0% | 2.5 |
| Rhode Island | 6 | 8 | 8 | 11 | 14 | 15 | 7.1% | 150.0% | 1.9 |
| West Virginia | 5 | 6 | 7 | 11 | 12 | 15 | 25.0% | 200.0% | 1.1 |
| Hawaii | 7 | 9 | 8 | 10 | 13 | 14 | 7.7% | 100.0% | 1.3 |
| District of Columbia | 6 | 6 | 9 | 8 | 10 | 12 | 20.0% | 100.0% | 2.3 |
| North Dakota | 2 | 4 | 6 | 6 | 9 | 10 | 11.1% | 400.0% | 1.9 |
| Mississippi | 2 | 3 | 4 | 7 | 8 | 9 | 12.5% | 350.0% | 0.4 |

Source: Brewers Association, Cushman & Wakefield Research

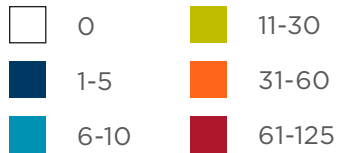
EXISTING BREWERIES IN THE U.S.



| County | Market | State | Total |
|----------------------|---------------|-------|-------|
| 1 San Diego County | San Diego | CA | 125 |
| 2 King County | Seattle | WA | 95 |
| 3 Los Angeles County | Los Angeles | CA | 75 |
| 4 Cook County | Chicago | IL | 72 |
| 5 Multnomah County | Portland | OR | 67 |
| 6 Denver County | Denver | CO | 58 |
| 7 Maricopa County | Phoenix | AZ | 43 |
| 8 Boulder County | Denver | CO | 43 |
| 9 Orange County | Orange County | CA | 41 |
| 10 Hennepin County | Minneapolis | MN | 37 |
| 11 Snohomish County | Seattle | WA | 37 |
| 12 Larimer County | Fort Collins | CO | 34 |

Legend

Total Number of Breweries by County



Source: Brewers Association, Cushman & Wakefield Research

THE CRAFT BREWING REVOLUTION

past 10 years, but those closings have had minimal effect on double-digit growth rates.

These risks, ironically, are most prevalent in those markets where the trend has already proven to be strongest due to sheer numbers. Portland (OR), Denver, Seattle and San Diego are just a few of the metropolitan areas where we have seen the strongest embrace of brewpub, microbrewery and regional brewery concepts. It's also where some of the fiercest competition exists due to the number of active players. Many of these markets continue to see new projects opening at a dizzying pace.

New craft brewing projects—including smaller brewpubs, microbrewery operators and larger, regional players active in the marketplace—continue to proliferate. The

space these projects are occupying runs the gamut from rehabbed urban buildings to traditional retail sites in malls or power centers. A favorite of users of all sizes is converted industrial buildings—many of them retrofitted to accommodate not only production needs but also tasting rooms, full pubs and/or restaurants and perhaps wedding or event space. In addition to the projects themselves, we are seeing more players in the marketplace: start-ups, private-equity funds and big beer conglomerates are either growing their way into the craft beer market organically or via acquisition and expansion (which is much more common).

As the craft brewing trend has reached maturity, it is inevitable that many individual markets may face a shakeout in the next 12

WHITE ELM BREWING CO.

LINCOLN, NE

When choosing a location for the White Elm Brewing Company in Lincoln, Nebraska, the partners looked into several retail locations, but felt like they would be trying to “shoehorn” a manufacturing operation into a retail space simply for the sake of a taproom. Once they compared the availability of water, natural gas and electrical supplies in retail vs. flex spaces, they opted for a 4,300-sf warehouse space in a flex strip mall. After seeking special permits to sell alcohol both on and off site, the location allows for a 1,000-sf tap room with seating for 80 people while also offering large docks and close proximity to interstates, which was key for the brewery’s distribution plans.



to 18 months. However, we certainly do not see the trend ending soon. Neither do we see it reversing itself, even in those metropolitan areas where competition is fiercest. In the most mature craft brew markets, it is much more likely that the divide between strong and weak concepts will widen. Strength will be determined by a number of factors: the quality of a concept, the strength of underlying financials behind a project and the viability and location of the real estate for those projects.

Keys to Success: Financials, Concept and Experience

The investment in any craft brewery space is significant from the massive equipment to the raw ingredients and water costs, to the tenant improvements and the lease provisions. The money is out there to support growth within this industry, but it is important for prospective brewers to have a solid concept in place in order to secure the proper capital and space.

Assuming all else is equal when it comes to the quality of the actual beers that are brewed, strong underlying financials are critical to the success of startups entering the marketplace. Brewpubs often need to have an executed lease in place prior to obtaining approvals for alcohol sales, a process which can take months. Landlords will need to feel confident in a prospective tenant's business plan and concept before taking a chance on tying up a property or space. One of the ironies of the financing side of both the craft brewing and restaurant world in general is that while many of the hottest concepts in the market today are entrepreneurial and local, most traditional financing is still geared towards national credit tenants, many of whom are struggling to replicate the very factors that are driving the success of any new players.

Likewise, operators need to understand local regulations and how those regulations may impact business plans. As state and local laws vary, each new brewery needs to ensure that it will operate within the proper distribution channels, have the

“One of the ironies of the financing side of both the craft brewing and restaurant world in general today is the fact that while many of the hottest concepts in the market today are entrepreneurial and local, most traditional financing is still geared towards national credit tenants, many of whom are struggling to replicate the very factors that are driving the success of these upstarts.”

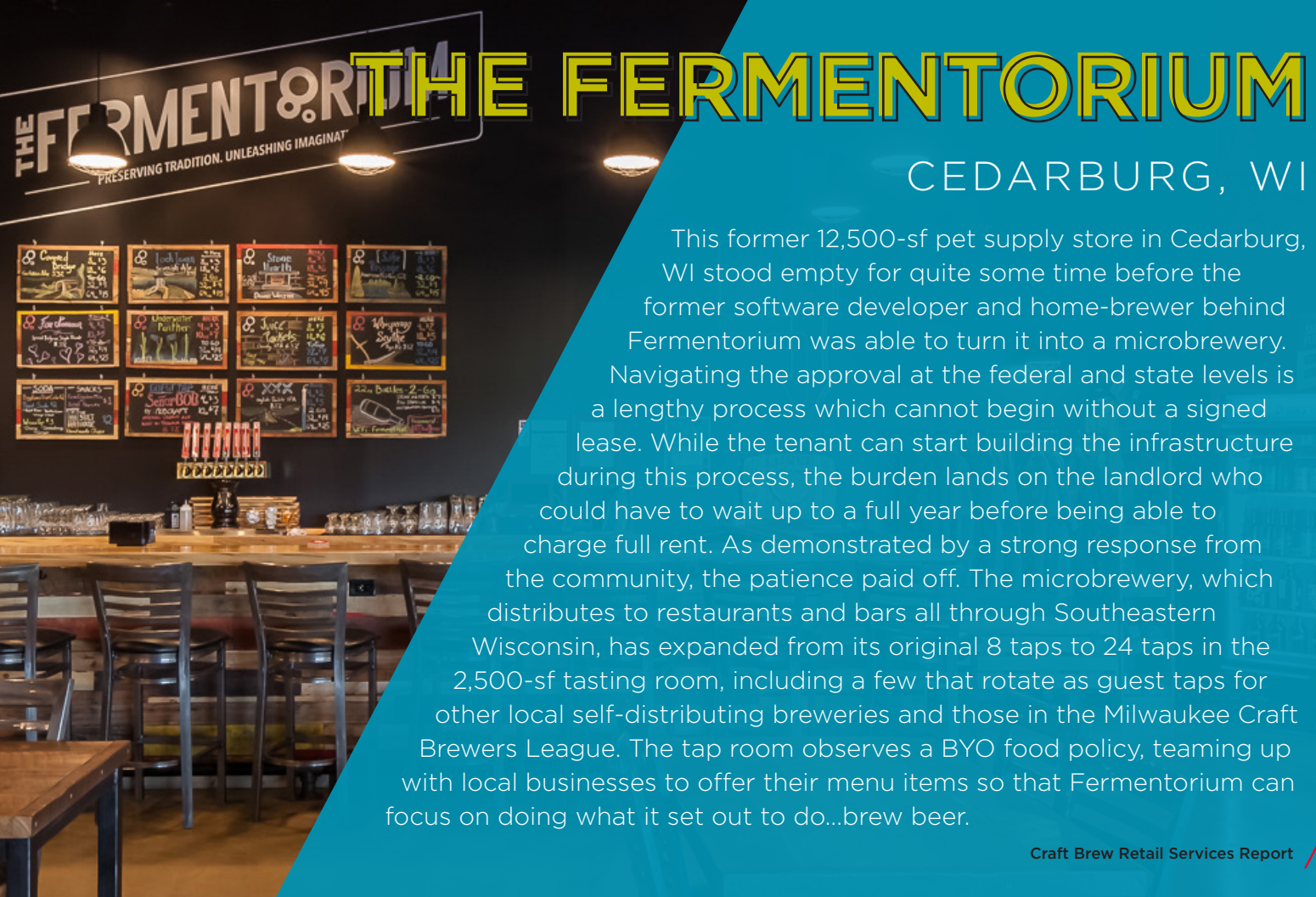
appropriate food-to-beer ratio depending upon the production level they plan to achieve, and have the necessary clauses written into their lease.

We cannot underscore enough how important it is that operators in this space fully understand the importance of their concept and experience, especially as it relates to connecting with the Millennial consumer base. How do brewers thrive in this competitive field, particularly in markets where this trend is more mature?

A defining trait of the Millennial Generation is prioritizing experiences over material goods. While “creating an experience” is paramount in retail across the board, it is even more important in the craft brewing space because millennials remain the core

consumer here. A brewery without an interesting atmosphere, no matter how many taps they have, will feel just like any other bar/restaurant. This is why both the real estate a brewery occupies and the design of the space matter immensely.

Successful modern craft brew operators need to create a distinctive sense of place. This starts with picking the right location, building or space. Many of the best new concepts which have become destination spots have been successful in non-retail venues. But while there may be a wide range of commercial real estate options available to users—from traditional retail to industrial sites—few of these succeed without investing in design to help create a sense of space and community.



THE FERMENTORIUM

CEDARBURG, WI

This former 12,500-sf pet supply store in Cedarburg, WI stood empty for quite some time before the former software developer and home-brewer behind Fermentorium was able to turn it into a microbrewery. Navigating the approval at the federal and state levels is a lengthy process which cannot begin without a signed lease. While the tenant can start building the infrastructure during this process, the burden lands on the landlord who could have to wait up to a full year before being able to charge full rent. As demonstrated by a strong response from the community, the patience paid off. The microbrewery, which distributes to restaurants and bars all through Southeastern Wisconsin, has expanded from its original 8 taps to 24 taps in the 2,500-sf tasting room, including a few that rotate as guest taps for other local self-distributing breweries and those in the Milwaukee Craft Brewers League. The tap room observes a BYO food policy, teaming up with local businesses to offer their menu items so that Fermentorium can focus on doing what it set out to do...brew beer.

THE CRAFT BREWING REVOLUTION

The challenge is that as competition edges up in any given market, plug-and-play leases in otherwise nondescript second generation retail space, with no substantial improvements, could mean death. Investing in innovative design and architecture that can range from historic rehabs to slick, industrial chic, is key for a craft brewer to stand out from the competition.

Entertainment is also key to creating experience. When the microbrew trend began, the brewery tour was often the entertainment. Breweries are now incorporating open spaces for various activities such as live music, film screenings or backyard-style games, creating a fun environment that attracts both beer- and

non-drinkers to enjoy a common social experience. Several breweries actually advertise a family-friendly atmosphere.

Staffing is also important. Craft beer brands are often born from a love of brewing, but growing the operation requires a staff that can foster the appreciation of the product and create an all-around experience for customers. This means hiring and training a knowledgeable pour or wait staff. Servers need to be able to engage patrons, educate them on the various brew styles and offer suggestions that appeal to customers' palettes. Breweries that offer beer flights—a set of small “taster” glasses with different beers in each one—invite customers to compare, learn and pick their favorites.



FAT HEAD'S BREWERY

CLEVELAND, OH

Fat Head's Brewery and Saloon was an early pioneer in the movement, having opened in Pittsburgh (PA) in 1992. In 2009 they crashed the scene in Cleveland with the wildly successful opening of Fat Head's Brewery & Saloon in North Olmsted (OH), followed by a westward expansion into Portland (OR) in 2014. Fueled by demand for their product, Fat Head's incorporated a full-scale production facility in 2012, located in Middleburg Heights (OH). Now the long anticipated brewery expansion in Ohio is underway and expected to open in early 2018. Fat Head's Brewery signed a long term lease to occupy 75,000 sf in a larger 125,000-sf building on Engle Lake Drive in Middleburg Heights, with Fat Head's eyeing an expansion into the remainder of the building. The new location will feature a 10,000-sf, 220-seat full service restaurant plus 65,000-sf brewery that offers a self-guided tour of the operation, making it a tourist destination for beer enthusiasts.

In a new, tighter marketplace, merely having a lot of tap handles and little else probably isn't going to cut it.

Finally, operators need to have a cogent strategy when it comes to food. Adding a food element is not necessary for a craft brewer's success, but if done properly, can be a major asset. Beer and food go hand-in-hand; some concepts have developed menus that "pair" food options with their drinkable offerings. Even having a traditional in-house menu can be beneficial as it increases sales, encourages repeat customers and further builds brand loyalty.

But master brewers don't have to pretend to become chefs. We are increasingly seeing partnerships with restaurateurs, ranging from chefs to food truck operators, as being the key to success for many concepts with local food players generally driving the greatest amount of local traffic and consumer loyalty. The advantages to this concept are increased variety and the ability for the brewer to focus on perfecting their core craft.

Another advantage of an on-site food component is that it can prolong a customer visit. That will likely result in increasing the average beer sales. While incorporating food into brewery offerings is by no means mandatory, experienced brewers understand the benefits and typically ensure that food is considered when expanding or relocating their business.

Looking Ahead:

While the craft brewing trend is now in a new phase of maturity, there are still many opportunities for growth in most major American markets. This is an industry that has exploded as consumer tastes

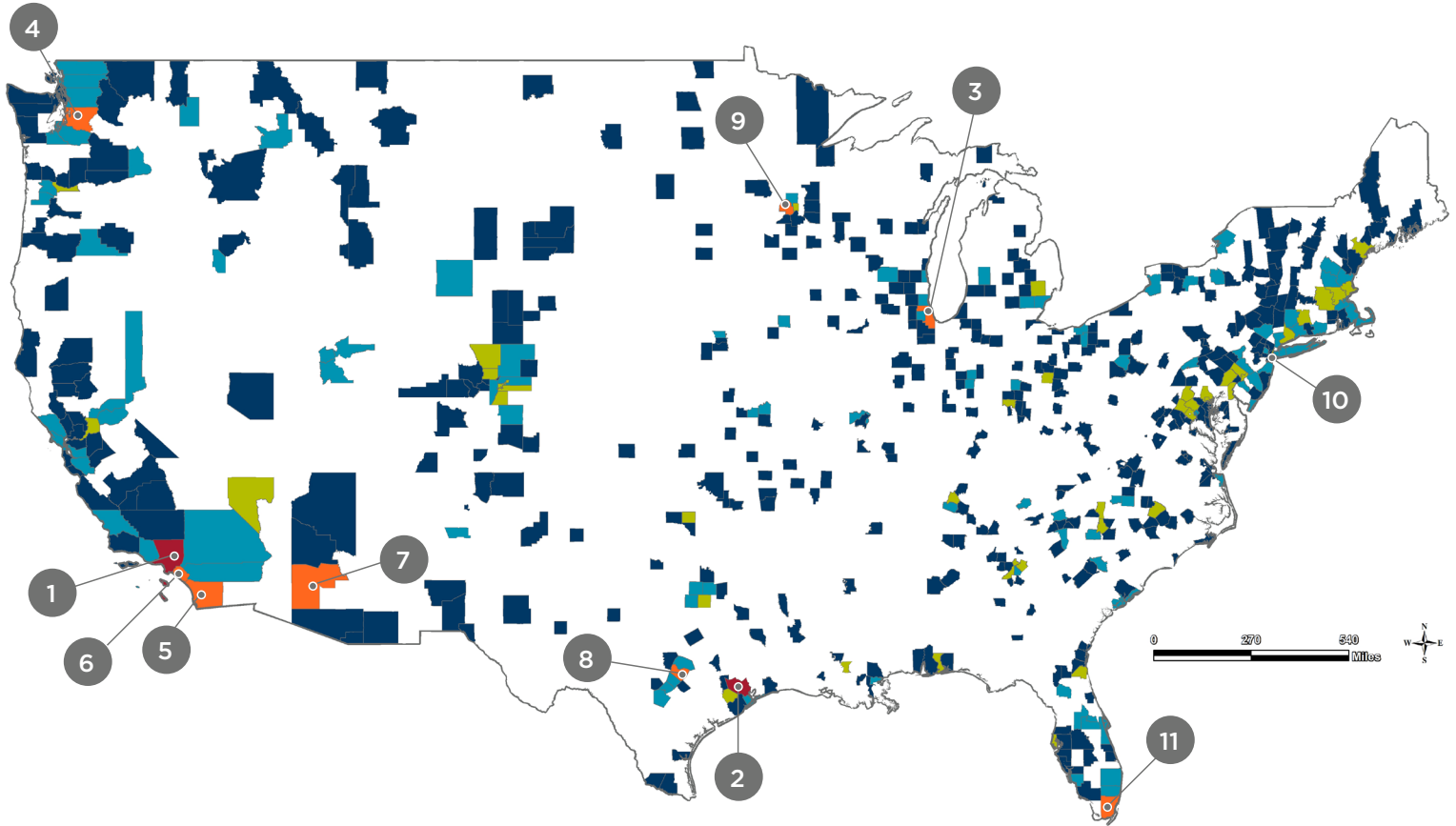


have evolved, and while there may be a number of major metropolitan areas where saturation is becoming an issue, nothing suggests that consumer demand for craft beer is doing anything but increasing and expanding beyond the millennial base that has accelerated the growth of this entire movement.

Urban locations will still be the primary hot spots for craft brewers, with Cool Street neighborhoods figuring prominently. However, users active in this space offer opportunities not just to retail landlords but industrial landlords as well. They also present compelling opportunities for local governments and economic development groups looking to drive redevelopment and urban renewal projects with viable tenants that engage consumers.

While we will continue to see many successful brewpubs, microbreweries and regional craft brew players being acquired by conglomerates in order to capture a piece of the action, the craft-brewing marketplace is likely to remain

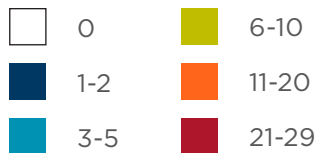
PLANNED BREWERIES IN THE U.S.



| County | Market | State | Total |
|----------------------|---------------|-------|-------|
| 1 Los Angeles County | Los Angeles | CA | 29 |
| 2 Harris County | Houston | TX | 27 |
| 3 Cook County | Chicago | IL | 19 |
| 4 King County | Seattle | WA | 19 |
| 5 San Diego County | San Diego | CA | 18 |
| 6 Orange County | Orange County | CA | 16 |
| 7 Maricopa County | Phoenix | AZ | 15 |
| 8 Travis County | Austin | TX | 15 |
| 9 Hennepin County | Minneapolis | MN | 13 |
| 10 Kings County | Brooklyn | NY | 13 |
| 11 Miami-Dade County | Miami | FL | 11 |

Legend

Total Number of Breweries by County



Source: Brewers Association, Cushman & Wakefield Research

overwhelmingly dominated by local players. While a number of big beer acquisitions have certainly proven successful, some craft breweries have actually faced negative backlash from their core consumers after being acquired by larger conglomerates. Such backlash has occurred despite any commitment from those larger players to community involvement. It also reflects one of the potential pitfalls larger corporations face when dealing with millennials and their preference not just for authenticity but for local concepts over chains.

As the craft brewing industry continues to evolve and meet the demand of its core customers, the winners will likely be those operators that produce excellent

products with a wide variety of brands and flavors for curious and thirsty millennials. But authenticity, experience and sense of community are not mere buzzwords—they are core Millennial Generation values. The most successful craft brewers will be those that embrace those values.

Meanwhile, as more and more markets continue to see growth from this sector, the issue of quality real estate becomes even greater. This isn't just from a locational perspective, but from a design perspective as well. The most successful concepts will be those that create a true sense of place wherever they are situated, whether they are a standalone destination, an industrial redevelopment, historic rehabs or even in traditional retail space.



ELLIS ISLAND CASINO & BREWERY

LAS VEGAS, NV

One wouldn't think that a funky, out-of-the-way, low-roller casino with a largely local clientele would be ranked as the top brewpub in Sin City, much less Nevada. But Ellis Island is ranked top in the state (by the National Brewer's Association) and we think that the largely local clientele might have a lot to do with that. The place also has the best BBQ in town and a charmingly bizarre karaoke bar where patrons can take a break in between playing \$3 Craps.

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